

Tibialis Anterior

Origin: Lateral surface of tibia, interosseous membrane

Insertion: Medial cuneiform bone, base of 1st metatarsal

Innervation: Deep fibular nerve (L4, L5)

Action: Dorsiflexion & inversion

Muscle test:
Pt: plantarflex & evert foot
DC: resistance hand on medial foot & resist pt's movement
Pt: dorsiflex & invert foot

Weakness: Difficult/impossible to walk on heels, but doesn't usually interfere with normal walking

Trigger points: Upper 1/3 of muscle w/ referred pain along it & 1° pain referral to the front of the ankle & dorsal part of medial foot & big toe

Active release: Shorten muscle (dorsiflex & invert); lock after pt inhales; bring foot to plantarflexion & eversion while pt breathing out

Taping: **Activation:** shorten muscle (dorsi & invert); tape origin to insertion, "I" tape
Inhibition: lengthen muscle (plantar & evert); insertion to origin; "I" tape

Tibialis Anterior (cont)

Associated injuries: Plantar fasciitis; Achilles tendonitis; Morton's neuroma; Shin splints; General calf pain

TibA Management



TibA Trigger Points



Soleus

Origin: Solar line, medial border of tibia, head of fibula, posterior border of fibula

Insertion: Posterior surface of the calcaneus (via calcaneus tendon)

Innervation: Tibial nerve (S1, S2)

Action: Foot plantarflexion

Muscle test:
Pt: prone; knee bent to 90°; foot dorsiflexed
DC: resistance hand on ball of foot & resist pt
Pt: plantarflex foot

Weakness: Inhibits blood flow to foot & ankle; fatigue during running

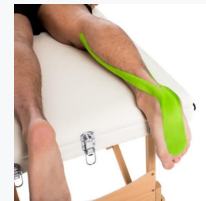
Soleus (cont)

Trigger points: Along inside aspect of the muscle just above the achilles tendon; referred pain in achilles tendon, belly of muscle, calcaneus bone, sacroiliac joint

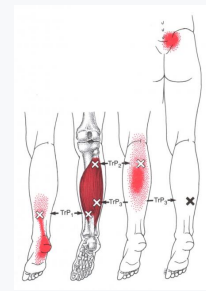
Active release: Shorten muscle (pt prone, 90° knee, plantar); lock (pt inhaled); lengthen muscle (bring foot to 0° & dorsiflex)

Taping: **Activation:** shorten muscle (pt prone & plantar); tape origin to insertion, thin "Y" tape
Inhibition: lengthen muscle (pt prone & dorsi); tape insertion to origin, thin "Y" tape

Soleus Management



Soleus Trigger Points



Quadriceps

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Erector Spinae

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Infraspinatus

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Supinator

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Levator Scapulae

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Tibialis Posterior

Origin: Posterior surface of tibia, posterior surface of fibula & Interosseous membrane

Insertion: Tuberosity of navicular bone, all cuneiform bones, cuboid bone, bases of metatarsal bones 2-4

Innervation: Tibial nerve (L4, L5)

Action: Plantarflexion, inversion, supports medial longitudinal arch of foot

Muscle test:
Pt: prone, dorsiflex & invert foot
DC: resistance hand on lateral foot & resist pt
Pt: plantarflex & evert foot

Weakness: Arch slowly collapses, heel drifts into valgus, & forefoot gradually abducts → painful acquired flatfoot

Trigger points: Near muscle origin, upper middle calf w/ referred pain to achilles tendon, belly of muscle, calf, heel of the foot & occasionally may cause shin splint pain

Tibialis Posterior (cont)

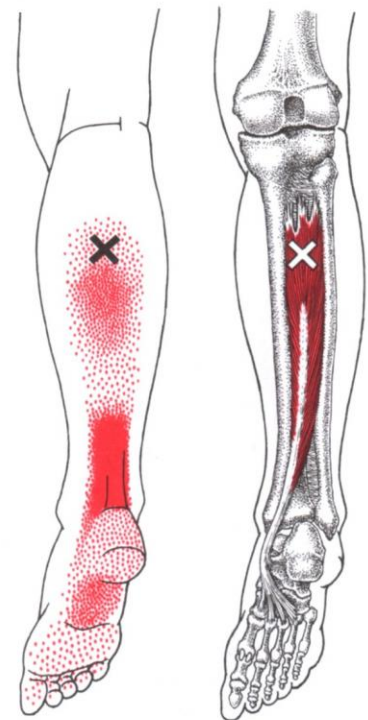
Active release: Shorten muscle (plantarflex & evert); lock after pt inhales; bring foot to dorsiflexion & inversion while pt exhaling

Taping: **Activation:** shorten muscle (plantar & evert); tape origin to insertion, "I" tape
Inhibition: lengthen muscle (dorsi & invert); tape insertion to origin, "I" tape

TibP Management



TibP Trigger Points



Fibularis

Origin: Longus head: head & proximal 2/3 of the lateral surface of the shaft of fibula, adjacent surface of the intermuscular septum
Brevis head: distal 2/3 of the lateral surface of the fibula, adjacent intermuscular septum

Insertion: Plantar side of the medial cuneiform & first metatarsal bone
Brevis head: tuberosity of the 5th metatarsal bone

Innervation: Longus head: fibular (peroneal) nerve (L5, S1)
Brevis head: superficial fibular (peroneal) nerve (L5, S1)

Action: Longus: **plantarflex** & **evertfoot**, provides support to longitudinal & transverse arches
Brevis: foot **eversion**

Muscle test: **Pt:** supine; dorsiflex & invert
DC: resistance on lateral aspect of foot & resist pt
Pt: plantarflexes & everts

Weakness: Instability in ankle, & a tendency to ankle sprain

Trigger points:

Active release:

Taping:

Quadratus Lumborum

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Serratus Anterior

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Pectoralis Major

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Flexor carpi radialis

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Scalene muscles

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Gastrocnemius

Origin: **Lateral head:** upper posterolateral surface of lateral condyle of the femur
Medial head: posterior surface of medial femoral condyle, popliteal surface of femoral shaft

Insertion: Posterior surface of the calcaneus via the calcanea tendon

Innervation: Tibial nerve (S1, S2)

Action: Foot **plantarflexion** & **leg flexion**

Muscle test: **Pt:** supine; knee extended; foot slight dorsiflexion
DC: resistance hand on ball of foot & resist pt
Pt: plantarflex foot

Weakness: Results in calcaneal gait (sole of foot doesn't contact ground); struggle climbing stairs & uphill walking

Gastrocnemius (cont)

Trigger points: Just below knee crease (medially), inch or two below (belly of muscle) & referred pain to achilles tendon, ankle, muscle belly, foot, lower 1/3 of post. thigh, post. knee

Active release: Pt prone; **plantar**flex feet; lock (after pt inhales); bring foot to dorsiflexion (while pt exhales)

Taping: **Activation:** shorten muscle (pt prone & plantar); tape origin to insertion, "Y" tape
Inhibition: lengthen muscle (pt prone & dorsi); tape insertion to origin, "Y" tape

Gastrocnemius Management



Gastrocnemius Trigger Points



Hamstrings

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Iliopsoas

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Trapezius

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Pronator Teres

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

Extensor carpi radialis

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping: